

Neoteny, Play, and the Anthropological Difference

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Abstract Human physiology shows many signs of neoteny—delayed physiological development that results in the retention in adulthood of traits normally only seen in the young. With our hairless bodies, large eyes, small jaws, and globular skulls containing large brains, we look more like the juveniles of other ape species than like the adults. This paper explores one common form of juvenile animal behaviour that is more prominent in adult humans than in the adults of other species: play. A notable feature of play is its nonliterality: objects, actions, and other players are treated ‘as if’ they were otherwise than they ordinarily are. Drawing principally on work by Johan Huizinga, as well as Bernard Suits and C. Thi Nguyen, the paper lays out some of the characteristic features of human play and games and argues for the centrality of play in human existence. Notably, human institutions in general bear the mark of the ‘as if’ character that derives from our capacity for play. To the extent that an anthropological difference—a difference that marks humans off from all other animals—is worth noting, on this view, it is more a matter of degree than of kind. Our self-understanding is enriched if we come to see ourselves principally as creatures whose distinctive forms of life are shaped by our capacity for play.

1. Introduction

If an alien race were to read through the history of Western philosophy, they would be struck by how obsessed human beings have been with insisting that they aren’t animals. Not just that they aren’t animals but that they’re so much better than animals. Crispin Sartwell summarizes an attitude he sees repeated throughout the tradition: ‘The Great Philosopher will, before addressing himself to the deep ethical and metaphysical questions, pause for the conventional, ground-clearing declaration: “I am definitely not a squirrel”’ (Sartwell 2021).

Despite tremendous changes over the centuries, culturally, scientifically, and philosophically, the idea of an essential difference between humans and animals has persisted in a fairly familiar form. Nearly two and a half thousand years after Aristotle characterized us as the *zōon logon ekhon*, the idea that human distinctiveness derives from our use of reason and/or language remains dominant. Contemporary philosophical discourse is replete with talk about ‘rational agents,’ a term that is generally assumed to be more or less co-extensive with human beings. As an alternative shorthand, the first person plural supposes, in the spirit of the Enlightenment, a ‘we’ that includes all and only humanity in its fraternal embrace.

What sort of entity are we trying to single out with this ‘we’? The idea that humans are *biologically* different from all other animals in some categorial sense has been untenable since Darwin, but even before Darwin biology was a side issue. No doubt, *Homo sapiens*, like every other species, manifests some *specific* differences from other cousin species (and, as the only extant member of the genus *Homo*, a greater difference than some species, although far less than, say, *Ginkgo biloba* or the aardvark). But when philosophers talk about human beings as different from all other animals, they have in mind something else.

Glock (2012) identifies three criteria that guide the philosophical pursuit of an anthropological difference. First, that difference must set us apart essentially or categorially. ‘Featherless biped’ might uniquely identify human beings, provided we set aside kangaroos and plucked chickens, but that definition doesn’t set us apart from other animals in any essential way.

Second, the difference must be fundamental. Many features of human existence are remarkable but we’re looking for the one that explains all the others. This requirement of a fundamental distinction motivates Aristotle’s identification of reason as our distinguishing characteristic. Reason, for Aristotle, isn’t just one human capacity among many. It suffuses *all* our other capacities and activities making them different in kind from superficially similar capacities and activities in other animals. For this reason, Boyle (2016) describes Aristotle’s conception of rationality as ‘transformative.’

Third, this difference must be important to our self-image. Glock mentions Lortol’s definition of the human being as the only animal that can partake of a hot meal in flight. Remarkable, yes, but perhaps not central to our self-understanding.

Discussions of a human difference return to reason and language again and again but other human characteristics also come up for special emphasis. Among them are our opposable thumbs, tool use, transmitted culture, science, religion, awareness of mortality, and clothing. Some of these features have analogues in non-human animals but even where some continuity exists, the differences of degree are nevertheless of a considerable degree. Caledonian crows may also use tools but they don’t send rockets into space. Cetaceans and songbirds have remarkable communicative capacities, but nothing that approaches the *Mahābhārata* in complexity.

A common theme in these treatments of human difference, as I noted above, is the insistence that human beings are not just *different from* but in some way *better than* other animals. For this reason, the difference is generally characterized in terms of humans having something

more: we have all the things animals have plus some extra special something. in *De Anima*, Aristotle identifies a number of powers of the soul that we share with other animals— nutrition, reproduction, appetition, perception, imagination, locomotion—but then adds one extra just for us: intellection (*noūs*).

This paper proposes that we invert that form of explanation. To the extent that human beings are distinctive, it's not on account of something *more* that we have but rather on account of something *less*. In particular, I will emphasize human *neoteny*, that is, our retention into adulthood of certain juvenile traits. Human neoteny, I argue, helps explain our outsize capacity for play. And, drawing on the work of Johan Huizinga, I will argue that this capacity for play is more outsize than it might at first appear. At the end, I will return to Glock's three criteria and assess how an emphasis on human playfulness fits with those criteria.

I first got to know Ronnie de Sousa as an MA student enrolled in his graduate course on the philosophy of biology at the University of Toronto. Among the many gifts Ronnie has bestowed on me, then and since, one has been an appreciation for the rich philosophical potential in thinking about human beings as biological organisms. The claim that humans are animals is often accompanied by a 'just' or 'only,' which makes the claim sound crudely reductive, not to mention derogatory both to humans and to other animals. That 'just' or 'only' seems to imply that we lack that vaunted something *more* that distinguishes us from other animals while retaining the hierarchical attitude that it would be *better* if we did have something *more*. This paper tries to do without the 'just' or 'only': we're animals, and that's a wonderful thing. What kind of animals? Animals that play. And this is one more way in which the paper bears the stamp of Ronnie's influence, who, as a thinker and a person, displays the rich potential of human playfulness.

2. Neoteny

A newborn human infant is, morphologically, a transitional form between embryo and adult. The human embryo differentiates and grows top-to-bottom so that the head takes shape and grows faster than the legs and feet. A human fetus has a large, globular head, a smaller torso, and tiny legs. The heads of human infants are much closer to their fully grown size than the rest of the body, which has some catching up to do through childhood and adolescence.

The same is true of other primates. A baby chimpanzee has a similarly large and globular head attached to a relatively diminutive torso and limbs, which then elongate as the chimpanzee

grows. However, the chimpanzee head also changes considerably as it ages. The brow ridge and lower jaw become more prominent, the skull bones grow thicker, the face becomes sloped and hairy. Similar processes take place in humans, but to a far lesser degree. A comparison of human and chimpanzee skulls shows close morphological similarities into adolescence.¹ But human skull development seems arrested in primate adolescence. Compared to our ape cousins, we have more globular skulls, delicate skull bones, small jaws, and flat and hairless faces.

These are just some of the marks of human neoteny. Other notable morphological features in humans that track with juvenile forms of other apes are our relative hairlessness, our large brain-to-body-mass ratio, our large eyes, and small teeth.

There's little debate as to whether humans manifest neotenous traits. More debatable is the extent of the neoteny and what implications to draw from it. To begin with, some human traits manifest a contrary peramorphic tendency, where delayed maturation is accompanied by an extended period of growth. For example, human legs are proportionally much longer than those of their great ape cousins, suggesting that leg growth, far from being a neotenous trait, persists in humans far longer than in other apes.

Besides the fact that human development isn't neotenous across the board, there are questions about what to make of our neotenous traits. Stephen Jay Gould (1977), for instance, gives neoteny a central place in the story of human evolution. Others, such as Brian T. Shea (1989), are more circumspect. A significant ground of contestation here is the biological function of human neoteny—that is, how human neoteny was selected for and what evolutionary advantages it conferred on humans.

But if we want to understand how humans differ from other species of great apes, neoteny is a promising place to start. Many of the ways in which humans differ morphologically from other apes seem connected to neoteny. And, as I will argue, these differences are more than skin deep.

Before I develop this line of thought further, let me reflect on how it follows a different trajectory from more familiar approaches to thinking about human distinctiveness. First of all, in emphasizing neoteny, I'm drawing attention to a difference of degree rather than a difference of kind. Everything I say is consistent with regarding human beings as members of the family

¹ For visual reference, see the comparison between human and chimpanzee skulls here: https://www.mun.ca/biology/scarr/Neoteny_in_humans.htm

Hominidae. Radical differences emerge from this difference in degree but acknowledging that fact doesn't require that we assert a categorical difference between humans and other animals.

And second, this difference isn't a matter of humans having something *more* than their ape cousins—some crowning attribute, such as rationality or language—but rather a matter of humans having something *less*. While other great apes grow up, humans remain in a state of arrested adolescence. Chimpanzees and bonobos belong to the genus *Pan* but *Homo sapiens* is the Peter Pan of the hominid family.

3. Play and Games

Like neoteny, play is not unique to human beings. Play seems a common feature of juvenile behaviour across more cognitively complex animals. How precisely to define play in animals is a topic of debate. To get some sense of the difficulty, consider that anything worth characterizing as play ought to be *fun*, and fun is behaviourally ambiguous. Many of the behavioural cues that are characteristic of play show up also in stereotypy, which is often a sign of mental disturbance rather than enjoyment. More generally, speculation about the subjective experiences of non-human animals is fraught with difficulty. Behavioural biologists must steer between the Scylla of anthropomorphism and the Charybdis of crude behaviourism, neither being too confident nor too skeptical about animal experience.

A number of characteristics stand out in the various attempts by behavioural biologists to formulate a working definition of animal play.² Play, in some important sense, stands outside 'ordinary' life, it brings with it no evident reward beyond the play itself, it tends to be energetic or exuberant as well as intensely absorbing, and it often involves imitation of non-play behaviour, among other characteristics. One common feature of play is the 'play face,' signaling a desire to play, which is easily recognizable in dogs. The human smile has very clear analogues in the play faces of other primates.

One feature of play that I want to emphasize is its make-believe or its 'as if' character. Most play behaviour is an imitation of some form of non-play behaviour, but those engaged in the play recognize that they are simply playing 'as if' the behaviour were real. A cat that pounces on

² Burghardt (2005, chap. 3) provides a helpful overview of various attempts to define animal play as well as formulating a careful five-part definition of his own.

a rubber mouse doesn't then try to eat the mouse. It's playing at predatory behaviour, acting 'as if' the mouse were real, but isn't actually treating the mouse as real. This sort of behaviour implies a basic capacity for representation: the cat represents one thing (a rubber mouse) as another (an actual mouse) while also being able to distinguish the thing doing the representing from the thing being represented. This 'as if' quality of play will be important in my treatment of human play.

Play, as I said, is a common feature of *juvenile* behaviour across cognitively complex animals. As they mature, animals play less. One behavioural mark of human neoteny is that play remains far more important to adult humans than adults of other species. And indeed, as I will argue, play is far more central to adult human culture than we might suppose.

Johan Huizinga's *Homo Ludens* ([1938] 1995) lays the foundation for the study of play as a significant cultural phenomenon. He summarizes the main formal characteristics of play, saying that it is

a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means. (Huizinga [1938] 1995, 13)

Note the many resemblances between Huizinga's characterization of human play and some of the features I adduced from the literature on animal play. In both cases, we see play set apart from 'ordinary' life, the claim that play is deeply absorbing, and that it is autotelic: it exists for its own sake and promises no rewards beyond itself.

A number of features of Huizinga's definition are loose or unsatisfactory. For instance, his claim that play is not connected with material interest is belied not only by professional sports, to which Huizinga doesn't give attention, but also by gambling, to which he does. I'll say more about this claim in a moment, and argue that we can tighten it up to make it more plausible. But first I will tease out from this definition the idea of a 'magic circle,' a term Huizinga coins ([1938] 1995, 10), and which has become influential in subsequent work in the study of play.

The idea that play ‘proceeds within its own proper boundaries of time and space’ has intuitive appeal and has received further elaboration, notably in Salen and Zimmerman’s (2003) influential work on game design. As a simple example, consider a game of basketball. The game is bounded both spatially and temporally. Spatially, the game is bounded by the lines on the basketball court: when the ball goes out of bounds, it’s ‘out of play,’ and must be returned to the playing space according to set rules before play can proceed. And the game is ‘in play’ only for a fixed period of time: quarters or halves of varying lengths depending on the particular league regulations. Just as the ball is out of play when it goes outside the spatial boundaries of the basketball court, the ball is also out of play outside the temporal boundaries of the basketball game. A shot that leaves a player’s hand after the final buzzer doesn’t count.³

Earlier I remarked on the ‘as if’ or make-believe character of animal play. Some human play involves make-believe but not all play does.⁴ Children playing House pretend to be adults with jobs and a home to manage. But basketball doesn’t require any pretense of this kind. I’m not pretending to be someone else when I’m on the court, nor do I have to imagine myself in a fictional world. The fiction, such as it is, in basketball is a *normative* fiction rather than an imaginative one: I behave *as if* the goals stipulated by the game are supremely important. But I’m not treating those goals as important in a fictional world or as a fictional character. It’s *me* in *this* world that is trying to score baskets.

Game rules stipulate the normative transformation of games. These rules not only structure people’s behaviour within the magic circle of the game but also transform their goals. In ordinary life, throwing balls through hoops is at best an idle interest for me. But once I find myself within the magic circle of a basketball game, nothing is more important. What I may and may not do, and what I must do, are different in play than in ordinary life. This normative transformation is crucial to the idea that play, as Huizinga puts it, is ‘outside “ordinary” life.’

³ My example of basketball occludes another possible objection to Huizinga’s account of a magic circle. The idea of spatial and temporal boundaries makes clear sense with sports but less clear sense when applied to the virtual worlds of video games. Alternate reality games, which overlap with the real world, also muddy the idea of a magic circle. I think these objections can be answered with a few further modifications, but my purpose in this paper isn’t to give an exhaustive account of play so I won’t explore them further here.

⁴ Nguyen (2019) defends this point in detail in response to theories of play inspired by Walton (1990) that give make-believe an essential role.

The first sentence of Huizinga's summary above describes play as both 'not serious' and intensely and utterly absorbing. We can understand that contrast more clearly in the light of this idea of normative transformation. From a perspective outside the magic circle, caught up in the business of ordinary life, the normative structure of play seems unserious: getting balls through hoops is a trivial activity. And yet, the normative transformation effected by the magic circle makes this otherwise trivial activity take on paramount importance. Nguyen emphasizes that this utter absorption is one of the great pleasures of playing games: 'In a game, for once in my life, I know exactly what it is that I'm supposed to be doing' (Nguyen 2020, 67). The magic circle dispels the problem of weakness of the will.

The idea of normative transformation helps us to see what Huizinga is trying to say when he claims that play is incompatible with material interest and profit. Drawing on Suits ([1978] 2014), Nguyen distinguishes between the *goal* and the *purpose* of playing a game (Nguyen 2020, 5–6). Professional basketball players may have personal enrichment as their *purpose* in playing basketball but their *goal* is exactly the same as the players in a casual pick-up game: to get the ball through the hoop. What makes a game a game, according to Suits, is the way we pursue the goal. In games, as distinct from ordinary life, we pursue our goals by deliberately *inefficient* means, and we take on these inefficiencies for no reason other than because they make the game possible in the first place. For instance, I could progress toward the basket much more efficiently if I didn't have to bounce the ball and I could impede the progress of my opponents if I could tackle them, but the rules of basketball rule out such efficient means. Whatever its ultimate purpose, a game is a game in virtue of voluntarily adopting these inefficiencies. The purpose we might have in playing the game, whether it be personal enrichment or the desire for exercise and a good time, is external to the game itself—a 'goal of life,' as Suits puts it, rather than a goal of the game (Suits [1978] 2014, 39).

Although professional basketball players have considerable material interest in playing basketball, they pursue that interest by *playing*. While playing games might be remunerative for some, there is nothing productive or materially rewarding about achieving the goals of games in themselves. To use Huizinga's language, whatever rewards might lie in playing are rewards proper to the ordinary world, not to the world constituted by the magic circle of play.

Suits and Nguyen both write about *games* rather than *play* and explicitly distinguish games from non-game play. The critical difference lies in the way that they're structured by goals and

rules. Game-playing has a single-minded focus: players compete to achieve the goal of the game. Non-game play can be much more open-ended. A child in a sandbox might focus intently on a particular task for some time but that focus can shift without undermining the play. The absence of clearly defined goals also means that we can't really 'cheat' in non-game play. Cheating arises when players try to achieve the goal of a game by means that are more efficient than those permitted by the rules. No rules, no cheating. And conversely, no cheating, no rules.

Matters aren't quite so neat that we can draw a sharp line between games and non-game play and do so by appeal to rules and cheating. Even in a sandbox, certain forms of 'cheating' are conceivable. If the child conceives of herself as building a complex city, she might impatiently 'cheat' by shifting the criteria for what makes the city complete.

Rather than draw a sharp line between games and non-game play, I think we're better served in following Caillois ([1958] 2001, 27–35), who draws a graded distinction between what he calls *paidia* and *ludus*, the former representing the spontaneous exuberance of free play and the latter the controlled and orderly activity more familiar in games. *Paidia* dominates in young children whereas *ludus* comes to be more dominant in the play of adults.

Other animals *play* but arguably only humans play *games*. Whereas most animals abandon play as they mature into adulthood, humans just play differently. Human children unquestionably engage in more free play than adults but adults continue to play too. They simply slide farther along Caillois's scale from *paidia* to *ludus*. Adult human play is distinctive in the complexity and orderliness of its structure.

4. Play and Culture

In the previous section, I mentioned a few reasons we might not be fully satisfied with the summary definition of play that Huizinga provides. A deeper rooted reason we might feel unsatisfied is that this definition gives us neither necessary nor sufficient conditions for characterizing an activity as play. This shortcoming, however—at least in its failure to provide sufficient conditions—is deliberate. A central aim of Huizinga's book—whose subtitle is *A Study of the Play-Element in Culture*—is to show how pervasive the structures of play are. In particular, Huizinga emphasizes the formal similarities between play and ritual: 'The turf, the tennis-court, the chess-board and pavement-hopscotch cannot formally be distinguished from the temple or the magic circle' (Huizinga [1938] 1995, 20).

Consider a Roman Catholic mass in the light of Huizinga's analysis. Like a game of basketball, the mass is spatially and temporally bounded. The mass takes place within the spatial boundaries of the church and this space is set apart as special through rites of consecration. The mass itself is of a fixed temporal duration, between the procession and the dismissal. The mass is also normatively transformative. The priest, deacon, and choristers all have distinctive roles, as do those attending the mass. Central to the mass is the eucharist in which bread and wine are transformed in the ritual of transubstantiation. The proceedings are very deliberately set apart from 'ordinary' life. And while tremendous material gain derives from these rituals (the Vatican Museums are a sight to behold) the celebration of the mass is purposeless in any mundane sense. To those uninvested in the game of basketball, there may seem little point in throwing a ball through a hoop, and to those uninvested in Christian theology, there may seem little point in ingratiating oneself with a fictitious God.

Huizinga's magic circle is evident in other significant cultural practices. The stage of a theatre is another kind of magic circle, delimited in space and whose special role has a delimited temporal duration. The transformation on the stage is straightforwardly make-believe rather than normative: the actors conspire to create a fictional world set apart not just spatially but also imaginatively from our own. More generally, Walton (1990) has developed an influential theory of the representative arts as games of make-believe. We don't have to accept Walton's theory whole hog to recognize intriguing analogies between play and art.

I will develop this idea more systematically in a moment but first let me pause to confront some natural objections to this very quick suggestion that we find Huizinga's magic circle of play in such weighty activities as religion and artistic endeavour. These objections take the same form as the worry I raised at the end of the introduction about claiming that humans are 'just' or 'only' animals. Surely matters as significant as religion and art shouldn't be reduced to 'just' play. My response here is the same as my response earlier: I don't mean to deride religion or art but to elevate play. There's no 'just' about it. Play is a profound and pervasive feature of human experience and our religious and artistic impulses are one manifestation of this propensity for play.

But let me lay out two more particular objections. First, surely religion and art are *serious* undertakings. Yes, but as I noted—and as Huizinga emphasizes—so is play. A player absorbed in a game has all the intensity of focus of the faithful at prayer or the artist and her audience.

A second objection here relates to the *purpose* of play. Perhaps a player within a game has the same seriousness of purpose as the person at prayer or the artist and her audience but the game itself lacks the seriousness of purpose that the prayer or the artwork has. Play can seem frivolous because it is autotelic: we play for the sake of play itself. But a great deal of religious and artistic activity is autotelic as well. Many forms of religious contemplative or mystical practice present themselves as autotelic and many artists describe their practice in similar ways. In the artistic realm, the slogan ‘art for art’s sake’ captures the autotelic self-conception of some artists. We find a similar autotelic spirit in the spiritual domain in some Buddhist traditions that elevate the ideal of practicing meditation for the sake of the practice itself or when Thomas Merton writes of contemplative prayer that it ‘is not so much a way to find God as a way of resting in him whom we have *found*’ (Merton 1969, 4). Far from being frivolous, autotelic activity has intrinsic value.

5. Play and Institutions

Huizinga’s magic circle has analogues not just in religious and artistic practice but in institutions generally. Let me begin by sketching out Searle’s (2010) account of institutions and institutional facts. For Searle, the defining feature of institutions is that they have deontic powers. Institutions, in virtue of being institutions, imply rights, duties, obligations, requirements, and authorizations. The Roman Catholic church is an institution because, among other things, it has the deontic power of consecrating a marriage, electing a pope, and taking confession. Religion is not an institution because religion as such has no deontic powers. Religion is rather one category of institutions and within that category fall a variety of institutions—the Roman Catholic church, the Islamic Republic of Iran, Yeshiva University, the St. Benedict’s bake sale—whose deontic powers derive at least in part from their religious affiliation.

An institutional fact in its simplest form attributes to some object x a status function y in a context c . A status function is the attribution of some deontic powers in that specified context. For instance, as the chair of the meeting, I have control over the floor and authority to determine who will speak when. This authority is a status function that pertains to me in a particular context. I don’t retain this authority after the meeting is over and I gather with friends over a meal.

Searle intends this general account of institutions and institutional facts to apply broadly: a marriage, the United Nations, and the Canadian dollar are all institutions and my status as a

teacher, a son, and a passenger on public transit are all institutional facts. Searle's account ramifies and takes on layers of complexity but these complexities build upon a fairly simple general form.

That general form should be recognizable in the light of earlier sections. I emphasized the 'as if' character of play and noted that in human play that 'as if' can involve make-believe or a normative transformation (that 'or' is inclusive). In effect, play of all kinds institutes status functions of the kind Searle describes—it is indeed paradigmatic of these kinds of status functions. Within the magic circle of the basketball game, the ball and basket have particular properties and players have designated roles, responsibilities, and prohibitions with regard to them and with regard to one another. For the child in the sandbox, that pile of sand has the status of a castle, which must not be stepped on by anyone.

Here is my bold, speculative claim: rather than consider play as one species of institutional activity, we should consider institutions as one manifestation of the human capacity for play. To begin with, note that play has a broader scope than social institutions. Play, as I have noted, is not unique to human beings but institutions are. Institutions, Searle argues, are created by status function declarations and are maintained by a range of linguistic representations. The creation and maintenance of social institutions depends on a fairly sophisticated intersubjectivity, which in turn depends on language. Social institutions, then, are unique to language-using animals and humans are the only language-using animals.

On Searle's account, animal play would lack an institutional structure because non-linguistic animals can't perform the sophisticated activities to sustain an institution. We need words to declare a couple married or to appoint someone president. Not all institutional facts require a linguistic declaration to make them so. Searle (1995, 39) gives the example of a boundary wall erected by a tribe that originally serves as a physical boundary but which then crumbles so that only a line of stones remains. He imagines that this line of stones remains a *symbolic* boundary, no longer setting the boundary of that tribe's territory due to its physical properties but nevertheless signaling to both insiders and outsiders where the limits of that territory lie. Establishing the status function of those boundary stones doesn't require a linguistic declaration. But its continued status *as* a boundary requires intersubjective recognition that is only possible for users of language.

Compare the status of these stones *as* a boundary to the status of a toy mouse *as* prey for a cat. The cat's response to the toy mouse is spontaneous. It needs no instructing or reminding that, for the purposes of the game, the toy mouse counts as a prey animal. The toy mouse is a close

physical analogue for the creature it represents and so no further explanation is needed. Nor does the cat's play depend on any intersubjective agreement. Non-human animals do play with one another but the 'as if' structure of animal play always stays pretty close to home, as it were. Play fighting looks a lot like actual fighting, props look a lot like what they represent. When human children play, they need words to give their props significance beyond the physically obvious: 'That tree is the witch's house and we can't come near it.' Needless to say, founding joint-stock companies or trading Bitcoin also require language.

All of these more sophisticated forms of status function declarations build on the basic 'as if' structure of play. Language-using humans can do inordinately more with this structure than other animals can. But that basic capacity to treat one thing as another is something we share with other animals. And we share that capacity with other animals to the extent that we share with them the capacity to play.

I don't mean to sound like the surly teenager or hippie growling that the institutional structures around him are all just made-up games. Even Huizinga, who finds humans at play in a wide range of cultural activities, begins with the acknowledgment: 'It is ancient wisdom, but it is also a little cheap, to call all human activity "play"' (Huizinga [1938] 1995, ix). It takes more than the declaration that x counts as y in context c to make a game. In particular, most institutions lack the deliberate inefficiencies that Suits associates with games. One central function of deontic powers is to institute rules and prohibitions. But these restrictions lack what Suits calls the 'lusory attitude' that define the restrictions of a game (Suits [1978] 2014, 40–43). I could score baskets more efficiently in basketball if I could carry the ball without dribbling. The reason for barring this efficient means is internal to the game: the game itself is more interesting with this restriction. By contrast, the reasons the law imposes restrictions that bar efficient means to self-enrichment such as fraud, theft, and assault, are external to the institution. The law doesn't forbid these crimes in order to make the pursuit of wealth a more interesting challenge.

So I am not defending the strong claim that all institutions essentially *are* games.⁵ I am instead defending the weaker—though admittedly still very ambitious—claim that our capacity

⁵ The teenager/hippie claim that all institutions are essentially games might warrant further scrutiny. Suits ([1978] 2014, 11–12) hints at such an idea and Carse (1986) pushes in this direction as well. Articulating and defending this claim would take some doing, though, and for the purposes of this paper I only need to defend the weaker claim that institutions are founded on our capacity for play.

for forming institutions is founded on our capacity for play. Institutions are fictions of a sort: they institute normative transformations by conjuring deontic powers as if they were from thin air. National boundaries are often not even lines in the sand and yet the consequences of crossing them without authorization can be severe. It might sound a bit strange to say that we treat the 49th parallel *as if* it defined the boundary between the United States and Canada across more than 2000km. For all intents and purposes that line of latitude—itsself an institutional fact—is the boundary between the two countries. But both the boundary and the countries themselves depend on our capacity to treat one thing (a line of latitude, a geographical region) *as* another thing (a national boundary, a country). And this basic capacity to treat one thing *as* another derives from our neotenically-supercharged capacity for play.

6. Conclusions

I've covered a lot of ground in a short space, so it might be worth revisiting some of the connections I've drawn before spelling out what I think we should make of all this. I began with the observation that, compared with other apes, humans have many neotenous traits. One notable feature of juvenile animals in cognitively sophisticated species in general is their propensity for play. Unsurprisingly, then, humans play a lot, and play continues to feature prominently in their lives as they mature, far more than in other animals. I argued that the human propensity for play is even more striking when we consider Huizinga's claim that play and ritual are formally indistinguishable. I extended Huizinga's claim to propose that institutions in general derive from the human capacity for play. A central feature of play in general—in humans and non-humans—is its 'as if' structure, in which behaviours, playmates, and objects are treated in a non-literal manner. This capacity to treat one thing *as* another is the basic building block of institutions. I didn't claim that institutions are the product of play but I did propose that our capacity to form institutions is derived from this more basic capacity for play.

The paper started by probing the idea that humans are in some way categorially different from other animals. I want to return to that idea here and shift the question from *explanans* to *explanandum*. Typically, the *explanandum* is taken more or less for granted: humans are conspicuously different from other animals in a wide range of ways. *Something* very different is going on with us. So what is it? That's where the search for a satisfactory *explanans* begins. But we shouldn't accept that *explanandum* without further scrutiny. To begin with, just as a matter of

anthropological fact, it's not the case that all humans take themselves to be conspicuously different from other animals. In Sitka, Alaska, where I am writing this, I have been told by more than one local indigenous culture bearer that the Tlingit don't make a categorial distinction between 'human people' and 'animal people.' The lack of a strong idea of a distinction between humans and other animals is common in North American indigenous cultures and, as far as I can tell, has always been the norm among human groups that don't live in densely populated regions that feed primarily on domesticated foodstuffs.

In other words, it's not the existence of *Homo sapiens per se* that invite the question of how 'we' are different from all other animals. So the pursuit of some marker or set of markers that distinguishes *all* humans from *all* other animals is probably aiming at the wrong target. Instead, we should begin by asking what it is that gives *some* humans the felt need for an *explanans* for a felt difference that separates them from the other animals. Humans have been using language for a lot longer than they've been speculating about their difference from other animals.

I gestured at an answer a moment ago. Based on a rough survey of human origin stories,⁶ it seems that the idea of humankind as a distinct ontological category correlates with societies where humans live in a largely human-made environment and subsist primarily on foods derived from domesticated plants and animals. A great deal more could be said about this shift in thinking about human beings' place in nature—this topic is central to a larger project I'm developing—but one feature of these denser human societies is that they're *institutionally* denser. Far more of my life is conditioned and structured by institutions than life is in a subsistence economy. Consequently, the conceptual (not to mention physical) world I inhabit is more densely furnished with human constructions. I'm more inclined to see the world in anthropocentric terms and to see a sharp break between the human and the non-human.

If my earlier argument is correct, the institutional density that informs this idea of a categorial difference between the human and the non-human derives from our heightened capacity for play. That capacity for play is itself a mark of *continuity* with other animals rather than discontinuity. In other words, a felt difference between humans and other animals arises from the intensification of a capacity that actually marks a commonality between humans and other animals.

⁶ The origin myths in Sproul (1979) are a suggestive source. In large-scale agricultural societies, animals tend to be invisible or subservient in origin myths, and gods tend to be anthropomorphic. In societies based on subsistence economies, animals are much more present, and on a more equal footing with humans.

Let me now return to the three criteria for a satisfactory anthropological difference that I drew from Glock in my introduction and consider how my account of human playfulness looks in that light. The first criterion is that a purported human difference must set us apart from other animals essentially or categorially. By this criterion, play isn't a satisfactory mark of human difference. Unlike language, rationality, or many of the other traditional markers of human difference, our capacity for play is indisputably shared by other animals. However, the argument in the preceding paragraphs has attempted to shift the goalposts with regard to this criterion. What needs accounting for, I've argued, isn't some *fact* of an essential or categorial difference, but rather for the *perception* of an essential or categorial difference. And I've attempted to tie that perception to consequences of our refined capacity for play.

Glock's second criterion is that the difference should be fundamental. I've made the case for seeing our capacity for play as underlying the other differences that set us apart from other animals. In particular, our cultural and institutional life build upon the basic capacity manifest in play to treat something *as* something else.

Glock's third criterion is that the difference should be important to our self-image. My response to this criterion comes more in the form of an appeal than an assertion. Human playfulness may not be as central to our self-image as it's traditionally been conceived as, say, our rationality is. But I think it *should* be. Not simply because I think, as a point of fact, our capacity for play *does* have a central role in shaping the distinctive features of human existence. But also because I think it would be better for us to see things this way. The idea of reason as humankind's crowning achievement has justified both the brutal treatment of non-human animals that are thought to fall outside the domain of moral concern as well as the 'civilizing missions' of imperialism and colonialism that promised to shine the light of reason on benighted masses far from Europe. It's hard to imagine these undertakings being inspired by the conviction that we are *Homo ludens*. Less melodramatically, I suspect that on an individual level, it makes for a more joyful life to conceive of oneself *sub specie ludens*. One reason to celebrate Ronnie and his work is the extent to which he shares his joyful spirit of play with others.

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